

### **DETAILED ACTION**

1. This Action is in response to the Amendment dated 1/8/2008. Claims 1-16, 24-26 and 30-31 are pending and rejected.

#### ***Response to Amendments/Response to Arguments***

2. Applicant's arguments were fully considered. It is noted that Applicant's arguments are drawn to the claims as amended. The previous ground of 35 USC 103 rejection is withdrawn. The new grounds of rejection presented below are necessitated by amendment.

#### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

**3. Claims 1-9, 11-16 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turnbull et al (US 2002/0103789), hereinafter "Turnbull," in view of Pollitt et al. "View-Based Searching Systems - Progress Towards Effective Disintermediation" (1996), hereinafter "Pollitt."**

**As to claim 1**, Turnbull teaches the following claimed subject matter:

System including a user input device and user output device (fig. 1, #20, fig. 4);

Accepting first (fig. 4, #66) and second (fig. 4, #80) search terms from user input device, the second term (#80) associated with a predetermined list of two or more

names (#82);

Identifying documents from the database the satisfy the first search term (para. 0088);

Turnbull does not expressly teach determining a frequency of occurrence value for each of the two or more names in the identified documents, and presenting an indication of all the identified documents to a user by using the output device, wherein the indication includes a single list of the two or more names along with their associated values, ordered according to the values.

However, Pollitt teaches determining frequency of occurrence for two or more names in identified documents, and presenting an indication of all the identified documents to a user, wherein the indication includes a single list of two or more names along with associated values, ordered by the values (see fig. 3-7, note that the values are displayed first, in a first column, and a name is displayed next, on a second column of a search results page).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Turnbull, such that the claimed subject matter of “determining a frequency of occurrence value for each of the two or more names in the identified documents, and presenting an indication of the identified documents to a user by using the output device, wherein the indication includes a single list of the two or more names along with their associated values, according to the values” is implemented. The motivation would have been to provide more effective information retrieval than possible through simple keyword, command line interaction, and to

provide linked browsable subject views onto databases, as taught by Pollitt (see Abstract).

**As to claim 2**, Turnbull, as applied above, further teaches wherein the predetermined list of names (#82) is created at least in part by receiving signals from a user interface (e.g., user interface component in #80);

**As to claim 3**, Turnbull, as applied above, further teaches wherein the predetermined list of names is created at least in part by receiving signals from a process. This must happen for Turnbull to be functional in a computer environment as a browsing and searching system (e.g., see the display on fig. 4);

**As to claim 4**, Turnbull, as applied above, further teaches wherein the second term is selected from a list of context names (e.g., pull down menu #80);

**As to claim 5**, Turnbull, as applied above, further teaches wherein identifying documents includes sending a database query to a database server, and receiving search results from a database server. This must happen for Turnbull to be functional in a computer environment as a browsing and searching system (e.g., see fig. 1-2 and related text).

**As to claim 6**, Turnbull, as applied above, further teaches wherein the search results include document identifiers (fig. 4, #86).

**As to claim 7**, Turnbull, as applied above, further teaches wherein the first search term includes a keyword (para. 0088).

**As to claim 8**, Turnbull, as applied above, further teaches wherein determining includes searching the identified documents to determine if a name is present in a

document (see Turnbull, e.g., fig. 2, para. 0088, also see throughout Pollitt).

**As to claim 9**, Turnbull, as applied above, further teaches wherein searching includes pre-compiling a list of identifiers for documents in which a name occurs (e.g., the sub-categories is a list of identifiers for documents such as search results, in which a name occurs) and comparing the identified documents with names identified in the pre-compiled list to determine matches (this comparison has to happen for matches #86 to be displayed according to category and sub category #80 and #82).

**As to claim 11**, Pollitt, as applied above, further teaches ordering a list of the two or more associated names according to a frequency of occurrence of the associated terms in items. See above discussion of claim 1.

**As to claim 12**, Pollitt, as applied above, further teaches displaying a number associated with each name to indicate a number of documents in which each name occurs. See discussion above.

**As to claim 13**, Turnbull, as applied above, further teaches automatically defining two or more terms associated with the second term. This is seen in the automatic underlining of terms when subcategories corresponding to them are identified (see fig. 4, #84).

**As to claim 14**, Turnbull, as applied above, further teaches accepting signals from a user input device to define two or more terms associated with the second term (e.g., para. 0066).

**As to claim 15 and claim 16**, Turnbull, as applied above, does not expressly teach wherein the second term includes the word “genes” and an associated term

includes a gene name, or wherein the second term includes the word “regions” and an associated term includes a region name.

However, Turnbull discloses categories, which includes words and associated terms (meeting the limitation of “term” and “associated term”, see fig. 7-8) and an interface displaying categories and associated names (see e.g., fig. 4, #80, #82). Turnbull further discloses that the hierarchies are not limited (para. 0065, 0066), the user may establish categories (para. 0066), and the user may search the entire Web (fig. 4, #66). Furthermore, Pollitt discloses a term, an associated term, and a frequency of occurrence (see above).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Turnbull and Pollitt, such that a category for genes and associated names as subcategories, as well as a category for regions and associated names as subcategories, would be implemented within the search system and displayed on the interface of fig. 4 of Turnbull in a manner disclosed by Pollitt (see above). The motivation would have been to support a user searching on the Web for various items, in this case, content pointers (fig. 4, #86) to gene-related documents, and region-related documents.

**Claim 24** is drawn to an apparatus claiming the same invention as claim 1, in addition to a processor coupled to a user input device, a user output device, and a machine readable medium, all of which must be present in Turnbull for successful operation in a computer environment.

**As to claims 25-26**, see the discussion of claim 24 above.

**4. Claims 10 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turnbull in view of Pollitt, further in view of Kohda (U.S. Patent 5,621,879), hereinafter “Kohda.”**

**As to claims 10 and 30-31**, Turnbull and Pollitt teach an ordered list of names as seen above, but do not expressly teach wherein the names or displayed document identifiers are ordered in ascending or descending arrangement of the values.

However, Kohda teaches a conventional concept that data can be displayed in ascending or descending order of occurrence (col. 11, ll. 1-5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Turnbull and Pollitt such that the names are displayed in ascending or descending order according to the values, as claimed. The motivation would have been to allow a user to see which names return the most/fewest documents, as known to one of ordinary skill in the art.

***Conclusion***

5. Applicant's amendment necessitates new grounds of rejection.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Lu whose telephone number is (571) 272-8594. The examiner can normally be reached on 8:30 - 5:00; M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached at (571) 272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2161

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/Charles E Lu/  
Examiner, Art Unit 2161  
4/11/2008

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